

# Overview, History of Quilting & Safety Precautions

## **Overview:**

The goal of quilt camp is to teach sewing and quilting skills to the students. We hope that by exposing students to this art they will develop a love of quilting that will last them a lifetime. Students will work on mastering basic sewing skills, pin fabrics, cut out patterns, use a sewing machine, sew accurate  $\frac{1}{4}$ " seams and focus on tasks through completion. Students will be learning all about sewing and design during their time at Quilt Camp. The goal is to preserve the heritage skill of quilting, piecing techniques and learning various quilting methods. We will also be exploring quilt history and the family values preserved in quilts. In addition, we offer several activities to the youth that focus on teaching life skills such as positive self-esteem, accomplishing goals, and responsible citizenship.

## **History of Quilting:**

Quilting has been popular throughout the ages. The oldest quilted objects found were from around the 1st Century B.C. – it was a rug taken from a Siberian tomb. It is thought that quilting was practiced by the ancient Egyptians. Many nomadic people also used quilts for tents. The oldest known quilted objects from Europe include armor, saddle blankets, and whole-cloth quilts from Sicily. In the past, quilts were essential articles in households and had many uses. They could be used as curtains, tents, or to cover a doorway – as well as to warm your bed at

night! They were also used as petticoats, waistcoats, and as armor. Quilts also have been known to be an artistic outlet, instrumental in storytelling, to assuage grief, to carry on memories, or guide people to safety.

Quilting has played a role in history through preservation of everyday objects (corn and beans, anvil, flying geese), religion (Jacob's Ladder, Star of Bethlehem), political events (Clay's Choice, Whig Rose), and many other symbols find their way onto quilt tops through artistic expression. Sewing, especially quilting, is something tangible and beautiful created by one's own hands and brings a satisfying and rewarding experience for the quilter.

Quilting classes began early in the life of youth; and was especially important for the girls because it was expected for them to have several quilts in her hope chest. Pieced quilts became popular after 1840 when the manufacturing of textiles moved to being factory based. Women no longer had to spend hours a day spinning and weaving; this left them with more time to be creative!

### **Safety Procedures:**

Students will be using irons, scissors, pins, needles and rotary cutters. Rotary cutters are quite sharp and require care when using. Students will receive safety demonstrations, as well as be required to use Klutz Gloves anytime they are utilizing the rotary cutters. These are provided for the students.

\*If you purchase a rotary cutter for home use, we strongly recommend purchasing a Klutz glove at the same time. They can be expensive, but they can help prevent major cuts or injury. Rotary cutters must always be used with a rotary cutter mat that is specifically designed to work with the cutter.

# Skills Checklist

- \_\_\_\_\_ Can fill a bobbin and thread a machine
- \_\_\_\_\_ Demonstrates sewing a ¼” seam, and marked it on the machine
- \_\_\_\_\_ Knows sewing techniques in quilting (different from construction)
  - Don’t back stitch
  - Starting stitching – two options to reduce beginning thread tangle
  - Start with needle down – butt the fabric up against the needle use waste cloth
  - Use ¼” seam allowances
  - Don’t open seams
  - Press to side of darker color
- \_\_\_\_\_ Demonstrates using rotary cutter safely
  - Always close blade before laying it down
  - Use Klutz glove
  - Hold ruler firmly so it doesn’t slip
  - Never cut towards your body or arm
- \_\_\_\_\_ Demonstrates correct pressing techniques
  - Set seam flat – don’t move iron
  - Lift top fabric and press seam flat ahead of iron
- \_\_\_\_\_ Knows how to join fabric pieces with pins (pin perpendicular to seam)
- \_\_\_\_\_ Demonstrates how to “square” a block
- \_\_\_\_\_ Understand locking seams to match points (joins pieces with seams in opposite directions to match corners)
- \_\_\_\_\_ Measure side for borders
  - Measure from center, top and bottom and use average length
- \_\_\_\_\_ Sews borders onto top
  - Add border to sides of quilt first
  - Then adds borders to the top and bottom
  - NEVER just sews from one end to the other without pins
- \_\_\_\_\_ Make the quilt backing
  - Make backing 3-5” larger than quilt
  - Remove selvages to avoid puckers
  - Press the seam allowance open

\_\_\_\_\_ Make the “quilt sandwich”

- Place backing wrong side up on the table or floor
- Stretch slightly and tape securely
- Smooth batting over the backing
- Center quilt top right side up on the front of the batting
- Use quilting safety pins to pin the layers together (a grapefruit spoon can help!)
- Begin at the center and place pins 3”-4” apart, avoiding lines to be quilted

\_\_\_\_\_ Practice machine quilting to decide method to use

- Stitch in the ditch
- Echo stitching

\_\_\_\_\_ Machine quilts using either method

- Use longer stitch length
- Start in the center, and alternate sewing rows on either side of center

\_\_\_\_\_ Makes binding strips to go around the quilt

- Measures around quilt to determine number of strips needed
- Cuts 2¼” strips
- Sews strips together diagonally
- Cut beginning of binding strip at 45° angle
- Folds binding strip in half along the length, wrong sides together and press

\_\_\_\_\_ Sews binding to quilt

- Starts in the middle of a side and leaving 6” tail of binding loose
- Align the raw edges of the binding with the edges of the quilt top
- Sew ¼” seam, stop ¼” from the first corner
- Makes corner correctly
- Joins end and beginning of strip – or fold under

\_\_\_\_\_ Places label on back to be joined with binding – can be sewn into corner on two sides

\_\_\_\_\_ Slip stitches binding to back of quilt

\_\_\_\_\_ Proudly displays new quilt – YAY!!!

# Quilting Supplies

Supplies recommended for participant to bring:

**(MARK ALL SUPPLIES WITH YOUR NAME)**

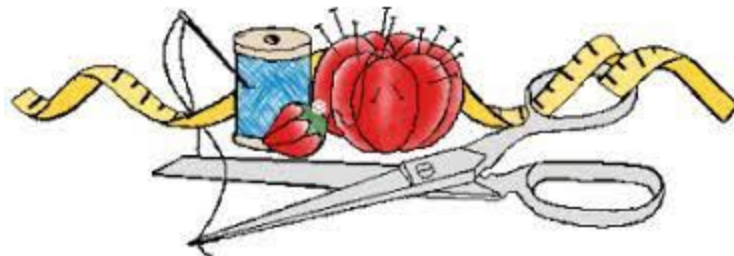
- Small pair of scissors for cutting threads
- Seam ripper
- Pin cushion and pins
- Layer Cake-10" squares, 36 needed

Optional items to bring:

- thread (white and gray will be provided)
- border fabric
- backing fabric (white and off-white will be provided)

Supplies that will be provided for the class use:

- Large scissors
- Rotary cutter
- Rotary cutter mat
- Klutz glove
- Marking pencil
- Quilting safety pins (curved)
- Quilting needles
- Quilter's squares and rulers
- Batting
- White and off-white fabric for backing
- White and gray thread



# Fabric Measurement Chart

$\frac{1}{8}$  yard = 4.5 inches

$\frac{1}{4}$  yard = 9 inches

$\frac{1}{3}$  yard = 12 inches

$\frac{1}{2}$  yard = 18 inches

$\frac{2}{3}$  yard = 24 inches

$\frac{3}{4}$  yard = 27 inches

1 yard = 36 inches

Fat quarter = 18"x22"

Fat eight = 9"x22"

Jelly roll = 40 coordinating strips, 2½"x44"

Charm pack = 40 squares of coordinating fabric, 5"x5"

Mini charm pack = 42 coordinating squares of fabric, 2"x2"

Layer cakes = 42 coordinating squares of fabric, 10"x10"



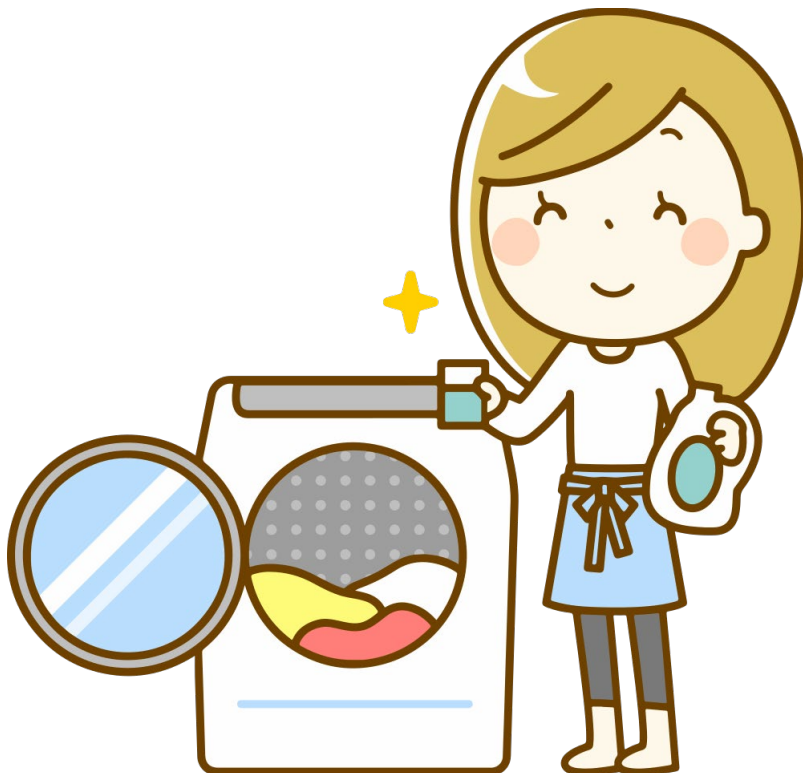
# Fabric Preparation

Various fabrics can be used in quilting. For quilt camp, we only use 100% cotton.

## **Fabric Preparation**

Prewashing your fabric reduces uneven shrinkage, reduces color bleeding, and reduces the chemicals used in production for sizing. Be sure to follow these steps when washing your fabric:

- Wash in cool water
- Wash colors, dark colors, and reds separately from your pastels and whites
- Machine dry



# Adding Borders to Your Quilt

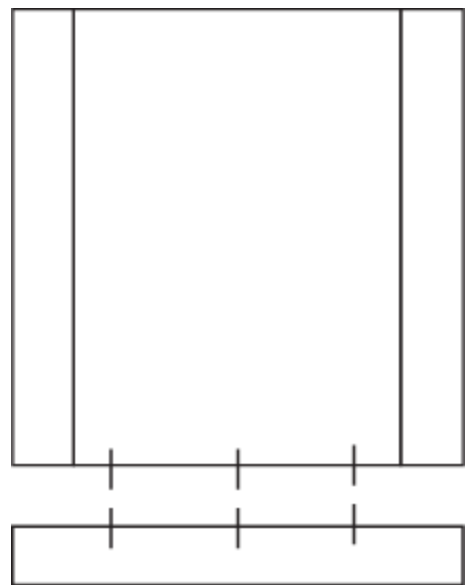
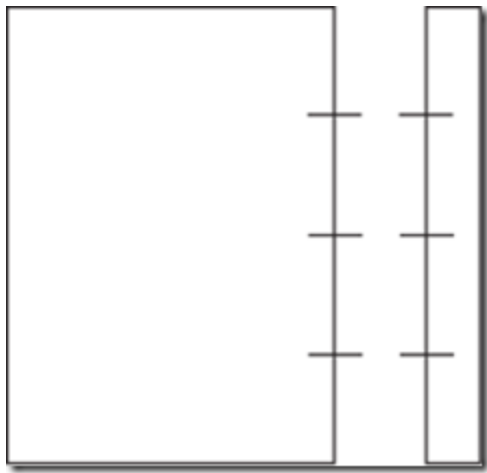
**Step 1.** Press the Quilt Top- The first thing that you need to do is to give the quilt top a good pressing. Make sure all the seam allowances are pressed in the direction you want them to go.

**Step 2.** Measure for the Borders- Use a measuring tape rather than a ruler or the grid on the cutting mat. The measuring tape will be the most precise tool. Measure 3 times and average. By using the average number, the border pieces will be the same size and the quilt top will end up square. If there is more than 1/2" difference, square the top again, or look for problems in the piecing that need to be fixed before adding the border.

**Step 3:** Cut Borders- Cut the width strips you need for your border. Butt the edges together and sew.

**Step 4:** Pin the borders in place- Fold the border and mark middle. Pin the border to the middle of the quilt. Next, pin each end. Add pins in each section with no pins until the whole border piece is pinned to the quilt. Ease to fit. Sew. Press.

Repeat measuring, cutting, and pinning for the crosswise sides.



# The Quilt Sandwich

A quilt consists of 3 layers:

1. The pieced top can be made from many pieces of fabric that is joined together by hand or machine to create a pattern.
2. The batting, or filling, may be made from cotton, wool, silk, or polyester. The batting is what makes a quilt. Batting adds depth and dimension to the quilt. In the Block Party, cotton and/or polyester batting will be used.
3. The backing is the bottom layer of the sandwich. It is a large piece of plain or printed fabric that completes the sandwich.



# How to Finish a Quilt

There's an old saying that "it's not a quilt until it's quilted," and that's so true. The method you use to quilt your quilt affects its final appearance and its stability. Quilt it by hand or quilt it by machine, the choice is yours.

You'll discover there are many ways to finish a quilt or "quilt" your quilt. By quilt, we mean how all three layers are secured together. We define a quilt as a top, a batting and a backing, joined together in some way to make the layers hold together without wearing.

Here's a few of the most common methods.

1. **MACHINE QUILTING** is relatively fast, and the stitches are durable. With machine quilting, your quilting can be simple straight lines or intricate designs, depending on your skill level. This could be difficult for a large quilt because of the amount of material that you would need to get under the machine arm. Options include hiring someone to machine quilt with a long-arm quilting machine or trying the quilt-as-you-go method.

## **Guidelines for Machine Quilting:**

- By matching the top thread to the quilt top and the bobbin thread to the backing, you will hide any shakiness in your stitching.
- Use a long stitch length of about 8 to 10 stitches to the inch.
- Rotate the handwheel on your machine to bring up the bobbin thread before you begin stitching. Secure in place by setting the stitch length to "O" and take a couple stitches.
- Start at the center of the quilt and work outward. Check often for puckering on the underside. Keep the quilt taut as you sew. Smooth and re-pin as necessary. When you are done with a section, backstitch a few stitches, or overlap with previous stitching.

2. **HAND QUILTING** is an age-old art, one that enhances the value (emotional and financial) of your work. Hand quilting is time consuming, yet not difficult. Options include: using a quilting frame or using a hoop for lap quilting. Start at the center and work toward the outer edge.

**Guidelines for Hand Quilting:**

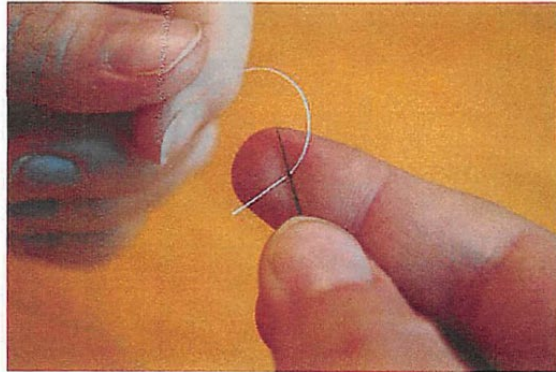
- Mark, layer, and thread baste.
- Use a good quality quilting thread and a quilting needle.
- You may use a running stitch or an up and down stitch.
- Keep your stitch length short, yet long enough to be even.

3. **Tying** is by far the quickest, yet it will not hold up as well to wear and tear. Tying does not provide the texture and life that quilting stitches add but it is a fast, simple and a good method for beginners. Tie at least every 4-6 inches using a square knot. Try to pick spots that follow the design of the quilt.

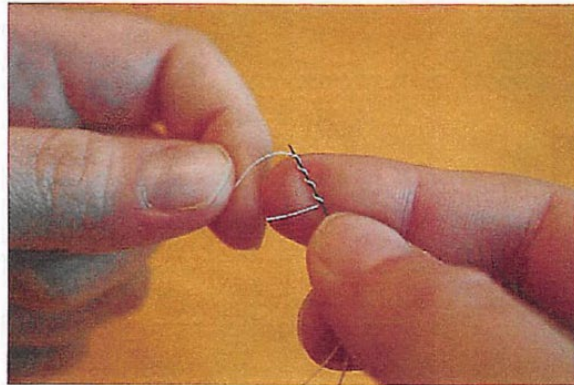
**Guidelines for Tying:**

- Use embroidery floss or crochet thread to tie your quilt. Embroidery floss holds a knot well and can add a bit of color if you wish.
- A curved needle is ideal for poking and pulling through several layers of fabric and batting. Sometimes a pair of pliers comes in handy to pull the needle through. Try for a  $1/8$ " to  $1/4$ " gap between the insertion point and the return pass of the needle.
- Use all six threads in the skein and a three-to-four-foot length of floss. Knot at the first tie point, then thread continuously through as many tie points as your length of floss allows. After using a full length of floss, cut midway between the tie points.
- Tie using square knots. Use scissors to trim away the excess after tying leaving about an inch-and-a-half of floss.

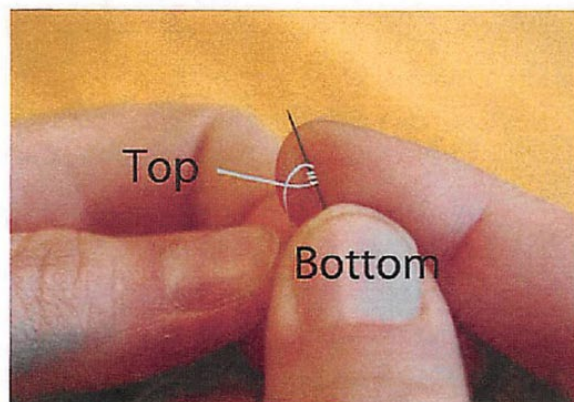
# How to Hand Quilt

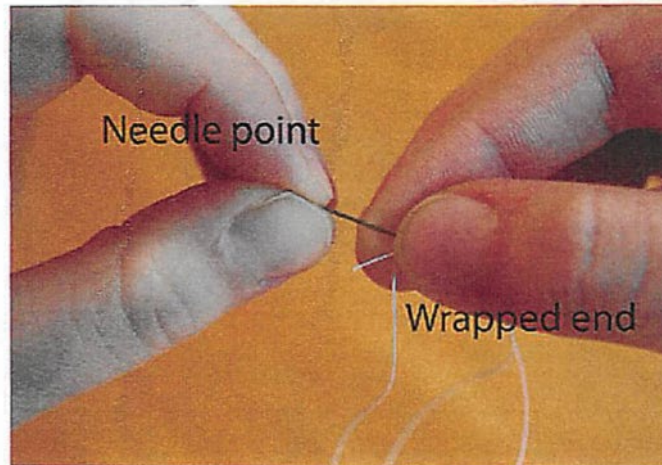


Holding the end of the thread connected to the needle in your left hand 2 inches away from the the pinch and needle, wrap it around the needle, going from front to back 3 to 4 times.

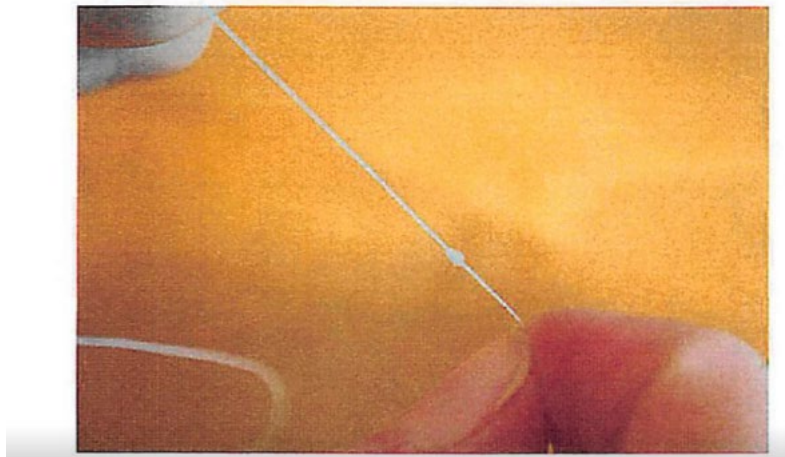
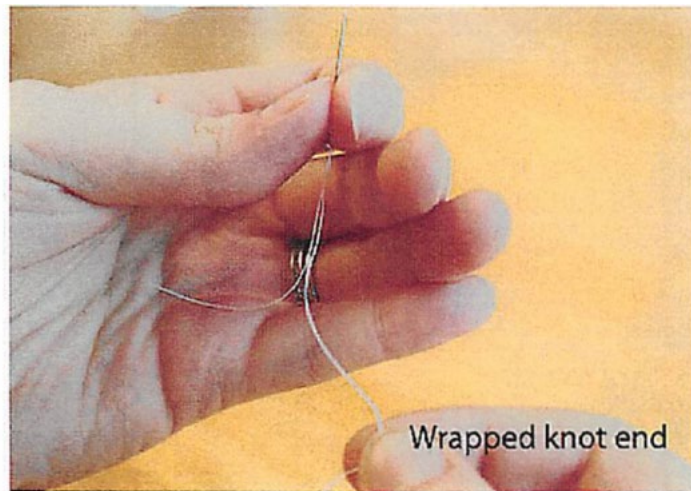


Then, making sure that the end of the thread is on top of the long tail, slide (without releasing your pinch on the end and wraps) your thumb and index finger around the wraps and let go of the thread in your left hand.

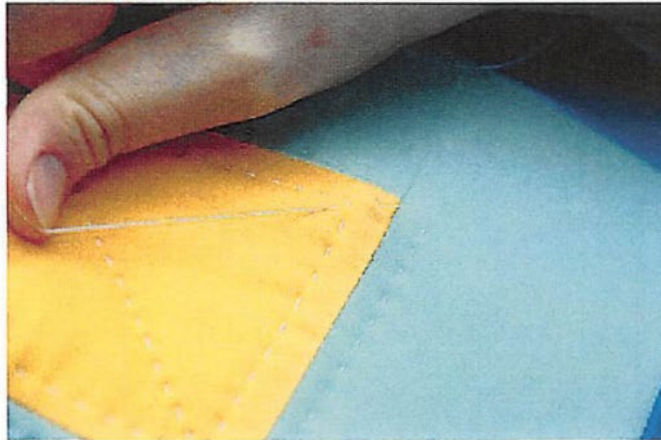




Pull the point of the needle with your left hand and keep the knot to be tight in the pinch, until the entire length of the thread has slid through the pinch in your right hand. Give it a little tug, and you have a quilter's knot.

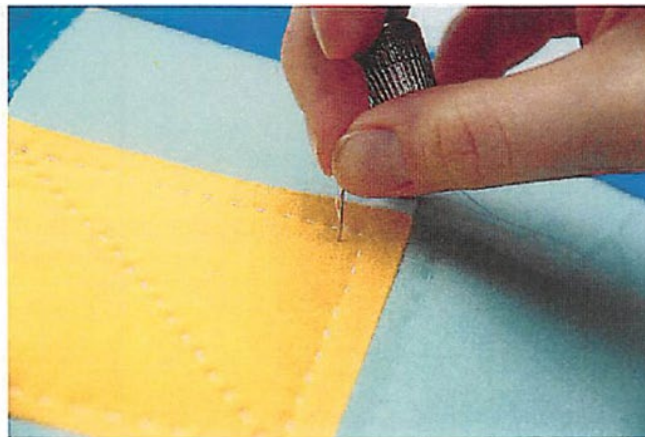


To pop in your thread, insert your needle next to where you want to start quilting, and into the batting. Pull the needle up to where you'll be starting your stitches at and tug at the knot until it pops into the quilt top. The knot should embed itself into the batting and will secure itself. You're just about ready to quilt!

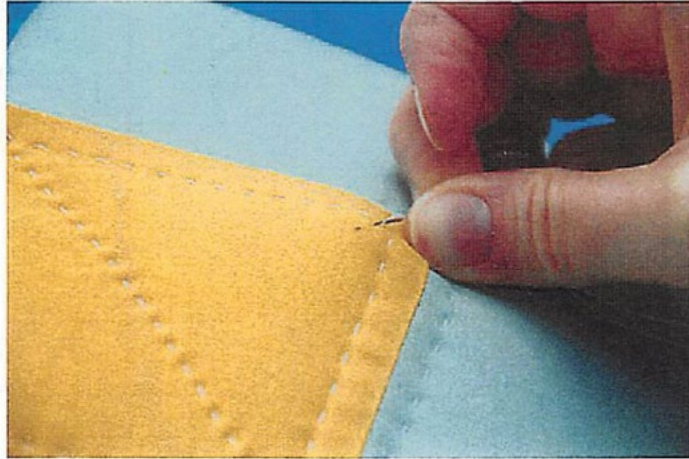


(For the next steps, I do things a little unconventionally. Traditionally, quilters are taught to wear their thimble on their middle finger, while gripping the needle with their thumb and index finger and then moving the needle with the thimble only. I always felt awkward holding the needle this way, so I wear my thimble on my ring finger and then grip and move the needle in and out of the fabric with my thumb and middle finger. I believe that as long as it feels comfortable, you should make modifications for your personal preference.)

Start by holding the quilting hoop on the arm you are not sewing with and keeping your hand under where you will be sewing at. Place the needle straight up and down, into the quilt sandwich.



Then, without pushing the needle all the way through, push up from underneath the quilt with your thumb and gently rock your needle with your thimble to pick up a new stitch from the bottom.



When the tip of the needle shows on the top of the quilt, point your needle back to the starting position of straight up and down and repeat the previous steps.



Once you have 2 to 3 even stitches on your needle, push the needle all the way through the fabric with your thimble.

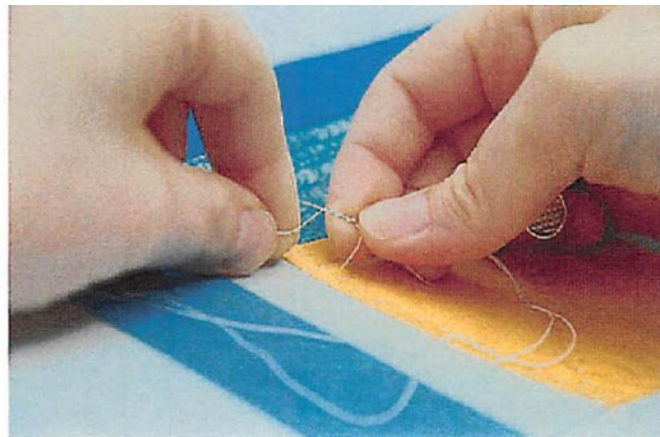
Continue quilting with controlled, even stitches until you are one stitch from where you would like to finish.



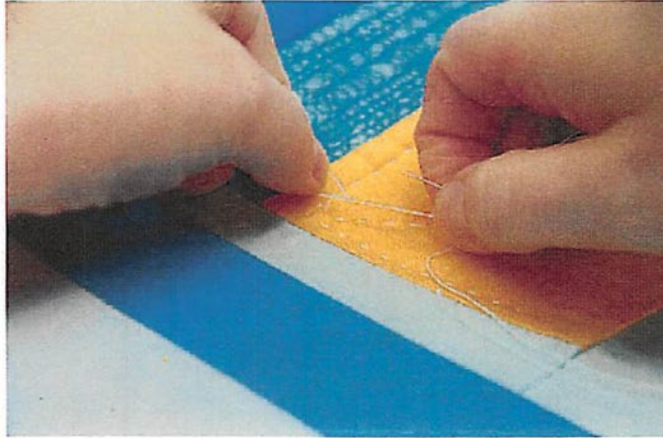
You'll need to make another quilter's knot to end the line of quilting. Start once again by holding the thread between your finger and needle, and wrap from front to back around the needle 3 to 4 times.



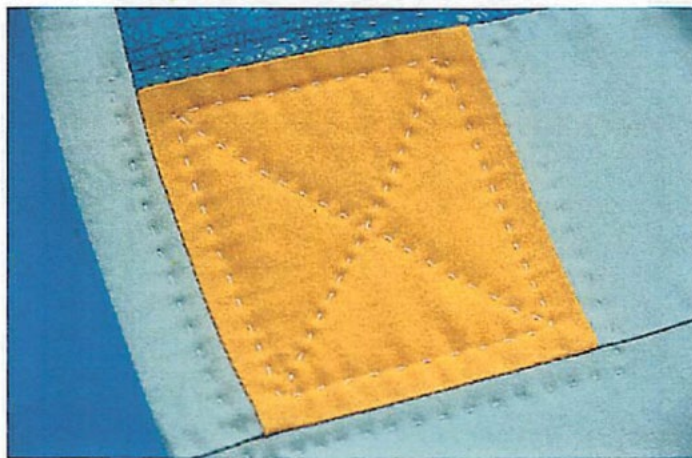
Making sure not to twist anything, gently slide the knot down and tighten about  $\frac{1}{4}$  inch from the last stitch.



Finish off by inserting your needle into the quilt sandwich, pop the knot into the center of the batting and cut the end of the thread. Easy peasy!



If this seems like a lot to think about, just concentrate one or two things at first. Start out by just working on making your stitches all the same length—it will help to make your quilting look neat and tidy. Keep practicing and in no time you'll be ready to tackle a quilt of your own!



<http://www.sewmamasew.com/2010/05/learn-how-to-hand-quilt/>

# Make the Quilt Backing

A quilt's backing is the bottom portion of the quilt sandwich – the fabric we see when we flip a quilt over to its reverse side. You might also hear that layer referred to as the lining or the back.

**Remove the selvedge** – selvages create little puckers along their length and should be removed before using fabric as backing. Determine how much width will remain after removing selvages.

**Determine quilt backing dimensions** – both backing and batting should be at least 4-6” wider and taller than your quilt top. You'll probably need to piece a backing for large quilts. Most quilters avoid using two equally-sized pieces of fabric to make backing, because that technique puts the seam that links them together along the quilt's midpoint, where quilts are often folded.

**Sew backing panels together** –

1. Measure the width of your quilt and add 4”
2. Design a backing to equal that width, adding  $\frac{1}{2}$ ” to each panel for each seam you'll use to sew it to a neighboring panel
3. Cut panels to the length of your quilt plus 4”. Sew panels together with a  $\frac{1}{2}$ ” seam allowance. Press seams open
4. Press backing before use.

Partial Width	Full Width minus Selvages	Partial Width
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# Quilting Fabrics & Grain Line

Various fabrics can be used in quilting. For quilt camp, we only use 100% cotton.

When you purchase 100% cotton, It's important to understand the thread count of the fabric. The thread count, or the number of threads per square inch, determines the quality and the weight of the fabric. The best cotton for quilting has a higher thread count (68x68 threads per inch) than other cottons with lower counts. Any cotton with a thread count of less than 60x60 threads per square inch will tend to ravel, shrink more and be less durable. Thread counts higher than 68x68, like that of sheets, can be difficult to quilt and will pucker easier. The finish and the thread count of bed sheets make it unsuitable to use for a quilt back.

When you're ready to purchase fabric, hold it to the light and look at the density of the threads. It is not enough to feel the fabric because some manufacturers use a special sizing to give the fabric a luxurious feel that will wash out and leave the fabric limp and unstable. Whenever possible, purchase fabrics from a reputable quilt shop that specializes in 100% cotton quilt fabrics.

## **Grain Line**

Lengthwise grain = warp

Crosswise grain = weft

When fabric is woven, the manufacturer places the lengthwise threads (warp) tightly in the loom to eliminate stretch. The crosswise threads (weft) are then woven back and forth, perpendicular to the lengthwise threads. These crosswise threads are not stretched as tightly as the lengthwise threads, giving the fabric a little stretch. Selvages are formed as the weft threads turn to change direction throughout the weaving process.

True bias is defined as the direction at a 45-degree angle to the straight grains. In quilting, bias is any cut that doesn't run along a straight grain. Cutting fabric diagonally across the grain line (on the bias) tends to leave edges that will stretch and distort easily because there are not stabilizing threads along the edges of the cut.

Cutting pieces according to a fabric's grain line makes for more accurate cutting. Taking the grain line into consideration reduces the stretching and distortion.

# 5 Quilt Binding Options

- Continuous strip binding or fabric strip binding
- Self-binding
- No binding (pillowcase method)
  - Envelop or sleeping bag method. Used with quilrows or comforters. With this finish you're not hand or machine quilting your quilt. Usually, the quilt is tacked with yarn, embroidery thread, etc. after you turn. You will have to make sure the quilt batting is secure before turning)
- Prairie Points
- Ruffled bindings

**A quilt is like a sandwich**, with a top layer of fabric, a middle layer of batting and a bottom layer of fabric, all joined together by your stitches. Binding a quilt means covering the raw edges of the quilt sandwich to give the quilt a finished look and protect its edges from wear. Binding is one of the last steps in finishing a quilt.

1. **Continuous strip binding** is the most preferred method for finishing a quilt. This is where you cut your fabric to make a bias tape. Usually this is 2 or 2½" wide. To save fabric this can be done on straight of grain, unless you have rounded corners. Quilts that are entered in fairs or for competition should be finished using a continuous strip binding method. If you will be hand stitching the edging, you will sew the binding with the continuous strip facing the top of your quilt and machine stitch ¼". Then you will turn to the back, pin and hand-stitch. Completing the entire edge by machine, you would put the continuous strip to the back of your quilt, sew ¼" edge and turn to the front and machine stitch.
2. **Self-binding** uses the backing fabric as the quilt's binding as well. Self-binding is less time consuming than creating fabric strip binding. It can also show off an especially beautiful backing fabric. The disadvantage is the binding is only one-layer thick. If you quilt will get a lot of use, consider fabric strip binding instead. To self-bind a quilt, you cut the backing fabric a couple of inches larger than the batting and top on all sides – large enough to allow for however much backing fabric you want to show on the front of the quilt. This is what some called **turn and stitch self-binding**.
3. **No binding (pillowcase method)** is sometimes also called "birthing" a quilt. This is the simplest way to finish your quilt. Instead of applying a binding, you simply sew around the edges of the quilt sandwich as if it were a giant pillowcase, leaving an opening on one side that's big enough to turn the "pillowcase" inside out. Once you turn the quilt right side out, you top stitch or blind stitch the open section closed. This kind of quilt is often tied with yarn, buttons, or decorative stitching instead of quilted in the usual way, because quilting might distort the shape of the finished quilt.

4. **Prairie points** uses the quilt's edges to finish with a triangular, folded-fabric embellishments called "prairie points". While they require more work than ordinary strip binding, prairie points can give a special quilt a beautiful, saw-toothed finish. The folded triangles can be nested or overlapped and spaced close together or widely spaced, whichever best fits the quilt's dimensions. The prairie points in this photo are several different sizes, which makes the quilt look informal and fun.
5. **Ruffled binding** is used when you want a frilly, feminine look. You can buy ruffled binding strips that are pre-folded to make them easy to sew to your quilt.

# 5 Tips for Caring for a Handmade Quilt

There's nothing like a homemade quilt for warmth and comfort and beauty. Of course, I think that - I'm a quilter. However, I know I'm not the only person who feels that way because I have a long list of people waiting for my next quilt!

There are lots of different kinds of quilts: antique quilts, decorative quilts, bed covering quilts. And each requires a different type of care. This article is about how to care for the types of quilts I make - bed covering quilts or cover-up-while-watching-TV-or-reading quilts. These quilts are made with new fabrics that have been pre-washed.

A quilt is different than a bedspread or comforter or blanket. Because it's made with lots of small pieces, it needs a bit of special handling. Here are my care rules for the types of quilts

1. Don't wash a quilt any more than you absolutely must. I wash my sheets every week, but I absolutely do not wash my quilt weekly. I wash it occasionally, as needed. The more you wash a quilt, the quicker it wears out.
2. If your quilt is close to needing washed, you can probably buy more time by airing it out or putting it in the dryer for a few minutes.
3. When you do wash your quilt, wash it in cold water on the gentle cycle for the shortest length of time available for your machine. Some quilters also recommend using a very gentle soap like Woolite.
4. It's okay to dry your quilt in the dryer on a gentle setting although some quilters don't recommend it.
5. If you notice any rips or tears, it's a good idea to go ahead and mend them before they get worse. It's much easier to mend a small tear than a big one.

If someone like me made you a quilt, they probably want you to use it. I'd rather you wear out the quilt I made you and must make you another one than have you put it in a drawer. But that's just me.

So, clean your quilt occasionally but enjoy it regularly!

# Signature Patches and Labels

A Signature Patch or label should always be sewn onto the back of your finished quilts. Labeling your quilts provides a historical reference of who, what, when, where and sometimes why the quilt was made. Quilts generally last a long time and are often passed own from one generation or family to the next. It's great to look at a quilt that has been passed down and see documentation on who made the quilt and when.

A Signature Patch/Label should include some or all the following information"

- Name of Quilt
- If using someone else's pattern, list their name
- Name of the person who made the quilt
- Name of the person who quilted it
- Date finished
- Location where quilt was made - City, State (optional)
- If the quilt was made for a special occasion, you can include this as well

Blank signature labels can be purchased or made. Sample label designs can also be printed on printable fabric sheets. You can use fabric paints, hand or machine embroidery, decorative stitches and alphabets form your sewing machine, or even draw designs directly on the fabric using permanent markers.

Many modern sewing machines include alphabets and decorative stitches, which can be used to create borders or frames around the quilt documentation. If other designs like flowers, hearts, animals, *etc.* are also available., use them to add some fun and unique touches to your labels. To provide a stable surface to write on that will not stretch or move, iron a piece of freezer paper to the back of your fabric before using fabric paints or permanent markers to write on the labels.

A fusible interfacing can also be applied to the back of the label to stabilize *the* fabric when writing on it or when using your sewing or embroidery machine.